and the pale, silvery crescent on the outer margin. Expanse, ♂, 1.25-1.65 inch; ♀, 1.65-2.00 inches.

Egg.—The egg is half as high again as broad, marked with sixteen or seventeen vertical ribs above, and pitted about the middle by hexagonal cells. It is pale green in color.

Caterpillar.—The caterpillar undergoes four moults after hatching. In the mature stage it is velvety-black, with a dull orange stripe along the back, and purplish streaks on the sides. The body is studded with whitish spots, each giving rise to a delicate black hair, and is further beset with rather short, black, hairy spines.

Chrysalis.—The chrysalis is pearly-gray, blotched with dark brown.

The life-history of this species has been carefully worked out, and all the details may be found described in the most minute manner by Edwards and by Scudder.

The insect ranges from Maine to North Carolina, and thence westward to the foot-hills of the Rocky Mountains.

(2) Phyciodes ismeria, Boisduval and Leconte, Plate XVII, Fig. 24, ♂; Fig. 25, ♀, *under side* (Ismeria).

Butterfly, ♂.—Easily distinguished from all other allied species by the double row of small light spots on the dark margin of the fore wings on the upper side, and by the silvery, narrow, and greatly bent line of bright silvery spots crossing the middle of the hind wings on the under side.

♀.—The female is like the male, but larger and paler, and all the spots on the upper side are pale fulvous, and not as distinctly white on the outer margin as in the male sex. Expanse, ♂, 1.15-1.35 inch; ♀, 1.35-2.00 inches.

Caterpillar.—The caterpillar, according to Boisduval and Leconte, is yellowish, with blackish spines and three longitudinal blackish stripes. The head, the thoracic legs, and the under side are black; the other legs are yellow.

Chrysalis.—According to the same authors, the chrysalis is pale gray, with paler light spots and nearly white

dorsal tubercles.

This insect ranges over a wide territory from Canada to the Southern and Western States east of the Rocky Mountains.

(3) Phyciodes vesta, Edwards, Plate XVII, Fig. 17, *$* ; Fig. 18, ? ; Fig. 19, ?, *under side* (Vesta).

Butterfly, $.—On the upper side it closely resembles the win-